2022 ACTIVE TRANSPORTATION PLAN - DRAFT

INTRODUCTION

The City of Kirkland has been making great strides towards being a community where it is safe and desirable to walk, bike and roll for people to meet everyday needs. Since the last time the Active Transportation Plan was updated, a significant amount of progress has been made:

> Safe, convenient and comfortable travel of people of all ages and abilities traveling by any combination of foot, bicycle, transit, or motor vehicle shall be accommodated to the maximum extent practical in the scoping, planning, development, and construction, operation and maintenance of all transportation facilities, including the creation of new transportation linkages in order to create a more connected community-wide transportation network.
>
> -**Kirkland Complete Streets ordinance,**

- Purchase and completion of the Cross Kirkland Corridor (CKC) interim trail which includes many access points, art installations and park amenities.
- City was the first in the state to adopt a Complete Streets policy. This was updated in 2016 to meet more current standards.
- Installation of dozens of street crossing improvements such as curb extensions, street calming measures, improved lighting and rapid flashing beacons
- Progress toward sidewalk completion. Goal from 2009 plan is 85% complete for arterials and 100% school walk-routes (on arterials and collectors). This number includes the annexed area in north Kirkland which was not part of original goal.
- Installation of over 60 miles of bike lanes, buffered bike lanes, and (under construction) neighborhood greenways.
- Creation of the Neighborhood Safety Program (NSP) empower communities to work collaboratively to identify, prioritize and address pedestrian and bicycle safety issues in Kirkland neighborhoods.

See Baseline Report Appendix E.

This plan outlines a strategy for continuing to improve safety and connectivity for people walking, bicycling and rolling. The focus of this plan is to better connect networks and increase safety so that walking and bicycling trips are a viable and comfortable option to access key destinations. Increased walking and rolling trips has many benefits for the health of people and the environment while also reducing roadway congestion.

PLAN PURPOSE

The purpose of this Active Transportation Plan (ATP) is to reaffirm Kirkland's commitment to safely connecting people to where they need to go by walking and rolling. This ATP update provides recommendations for more connected networks and improvements that meets the needs of people of all ages and abilities and to encourage more people to walk and bike.

The Active Transportation Plan addresses the City Council goal:

Balanced Transportation: Reduce reliance on single occupancy vehicles and improve connectivity and multi-modal mobility in Kirkland in ways that maintain and enhance travel times, safety, health and transportation choices.

According to the 2019 Safe and Active Transportation Survey, many people expressed an interested walking and rolling more often and would do so more if there were safe and convenient networks to do so. The perception of safety from other roadway users (or lack thereof) was consistently identified as the primary consideration for deciding to walk or bike for a trip. Moreover, more connected sidewalks, more protected bicycle lanes, and safer crosswalks were identified as the top three improvements that would incentivize people to walk and bike more. Further insights on what we heard from the community is further discussed in Chapter 2.

Given safety improvements represent the largest potential for shifting trips from driving alone to walking and bicycling, this plan has **THREE PRIMARY GOALS:**

- **Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.**
- **Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.**
- **Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.**

This approach directly responds to the community's feedback and is backed by clear objectives and achievable strategies to realize a safer, more connected Kirkland.

As such, the Plan puts more emphasis on a network designed for "Interested but Concerned" bicyclists, by integrating more neighborhood connections using less busy streets, and where feasible, creating more separation between bicyclists and motor vehicles on busier streets. This approach directly reflects the community's feedback, which is discussed more in Chapter 2.

Comfort Typology of Bicyclists				
Design User Profile	**Non-Bicyclist**	**Interested but Concerned**	**Somewhat Confident**	**Highly Confident**
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
% of General Public	**31-37%**	**51-56%**	**5-9%**	**4-7%**

Figure XX: Comfort Typology of Bicyclists[1]

This update accounts for progress made since the adoption of the 2009 ATP and 2015 Transportation Master Plan (TMP) and identifies projects – sidewalks, street crossings, bikeways – that will further enhance the pedestrian and bicycle networks and make these modes more attractive for more people.

[1] Dill, J. McNeil, N. "Revisiting the Four Types of Cyclists: Findings from a National Survey" Transportation Research Board 95th Annual Meeting, 2016. Note that children and elderly have not been surveyed as a separate category but are understood to have a very low tolerance of roadway stress.

Other Programs and Initiatives Supporting Active Transportation in Kirkland

The Active Transportation Plan focuses on identifying opportunities to make walking, rolling and bicycling safer in Kirkland through the identification and development of bicycle and pedestrian networks, crossings, lighting improvements as well other amenities such as bicycle parking, wayfinding, etc. The plan also identifies opportunities with technology, education and encouragement. The ATP will focus primarily on walk and bike access through public right-of-way spaces and working with plan.

There are other efforts that the City is working on that benefit people walking, rolling and bicycling but are addressed through other programs. These programs may be referenced in the ATP or have some overlap in the plan.

Parks, Recreation and Open Space (PROS) Plan:

The Parks, Recreation and Open Space (PROS) Plan is a six-year guide and strategic plan for managing and enhancing park and recreation services. It provides a vision for Kirkland's park and recreation system and establishes a path forward for providing high quality, community-driven parks, trails, open spaces and recreational opportunities. This plan will address trail access and maintenance through parks and green spaces.

The city is working together to identify how these plans work to create a connected system.

Safer Routes to School Action Plans:

The City worked in partnership with the Lake Washington School District, law enforcement, design professionals, students, parents, and neighborhoods to identify key steps to make walking, rolling, and riding the bus to school safer and more convenient. The outcome of this process was the development of the Safer Routes to School Action Plans (SRTS) for each neighborhood in Kirkland. These plans address education and encouragement, enforcement, evaluation and also identify projects based on equity and engagement that better connect kids to schools.

The development of the Active Transportation Plan was coordinated with the SRTS Action Plan development in terms of outreach and project development and prioritizes projects that overlap SRTS projects.

Vision Zero:

In 2015, Council adopted a Vision Zero policy to reduce serious injuries and fatalities in Kirkland by 2035. The Vision Zero Action Plan is being developed to identify safety improvements the City can make to reduce crashes in the city. There are some overlapping recommendations with the ATP but other actions noted only in the Vision Zero Action Plan still have benefits for people walking and bicycling by making our streets and communities safer.

Cross Kirkland Corridor (CKC) Master Plan:

The Master Plan outlines the community's vision for the corridor and will be used to guide development of the trail as well as transit and utility alignment. The plan also includes the location of access points, types and locations of amenities, and how road crossings and mixing zones are handled. The Master Plan was adopted by the City Council in June 2014 and retains its own body of work and recommendations. The Active Transportation Plan identifies some strategies for assessing the current status of the master plan and moving forward to implement it.

Neighborhood Greenways:

Kirkland's Greenways Guidelines, developed in 2017, provide the city with clear recommendations for building out the neighborhood greenway network using best practices. This document is intended to be updated as new best practices are better understood, including lessons learned as the city begins to build out the greenway network.

Neighborhood Greenways are street corridors, where walking and bicycling for all ages and all abilities are the priority modes of travel and driving a motor vehicle is the alternative mode of travel. These are often streets with

low speeds and low traffic-volumes that are comfortable alternative to bike lanes on busy arterials. Greenways often have signs, pavement markings and traffic control measures that enhance the comfort and safety of walking and bicycling. As such, driving an automobile on a greenway, by design, is less convenient than driving on the other streets. Greenways are an important tool for implementation of the Active Transportation Plan.

Neighborhood Safety Program:

The Neighborhood Safety Program (NSP), authorized by the City Council in 2014, is created to re-energize Neighborhood Associations by empowering them to work collaboratively to identify, prioritize and address pedestrian and bicycle safety issues in Kirkland neighborhoods.

Each year there is a total of $350,000 available for projects citywide under $50,000, including $150,000 funded by the voter approved 2012 Streets Levy. Eligible projects include bike facilities, intersection or crosswalk improvements, traffic calming, trail access or streetlights. Projects are restricted to City property, including streets, parks, community facilities, and the Cross Kirkland Corridor.

The SRTS and the ATP plans contribute to this process by providing the neighborhood associations more data driven recommendations at the neighborhood scale.

Sustainability Master Plan

When the Sustainability Master Plan was being developed, the update to the Active Transportation Plan had just started. As a proxy, the city opted to use the League of American Bicyclists – Bicycle Friendly Community rating and the Walk Friendly Communities rating as guides to communicate how the city will address the sustainability goals for active transportation and for the development of the ATP. The Bicycle Friendly Community and the Walk Friendly Communities ratings include aspects of engineering, education, encouragement and evaluation that are addressed in the goals and objectives in the ATP. The ATP goals and strategies are designed to meet the highest standards for the Walk and Bike Friendly Communities ratings.

Transportation Demand Management:

Kirkland has a Transportation Demand Management (TDM) coordinator who works on programs to encourage more people to take alternatives modes to driving alone such as walking, bicycling, carpooling and taking transit. Kirkland's Green Trip Program provides incentives for people to take alternate trips and some of the rewards include transit passes or even REI gift cards. The TDM coordinator also works with major employers to encourage employees to walk, bike and take transit through commute trip reduction programs.

PLAN GOALS

This ATP update builds on goals, policies and actions adopted in the 2015 Transportation Master Plan related to active transportation and the 2009 ATP. The 2022 plan builds upon this foundation with the following updated goals, objectives and stragies:

Goal 1: Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.

OBJECTIVE: Prioritize **sidewalk gaps** that connect people to activity centers, transit, parks and the Cross Kirkland Corridor (includes equity score as part of prioritization process)

OBJECTIVE: Complete sidewalk on **both sides** of transit routes and at least one side of all remaining arterials.

OBJECTIVE: Develop and operationalize a sidewalk repair program that includes periodic inventories to ensure the city maintains current and future sidewalks.

OBJECTIVE: Increase safety at **crossings** for pedestrians needed to complete pedestrian networks and access to destinations

- Strategy: Assess and **prioritize** additional crossings or improvements to existing crossings
- Strategy: Continue to utilize **a high standard** for crossing treatments such as RRFB's or HAWK signals. Explore additional safety measures such as in street signs for crosswalk enhancements
- Strategy: Upgrade crossings to address accessibility such as wheelchair ramps, aids for visual and hearing needs or other improvements to accommodate all people
- Strategy: Add sufficient lighting to all remaining light deficient crosswalks and assess any additional lighting needs
- Strategy: Continue to support and monitor the pedestrian flag program

OBJECTIVE: Provide additional pedestrian safety improvements at **intersections**

- Strategy: Explore opportunities for raised or painted intersections to increase safety and awareness at intersections with high pedestrian volumes
- Strategy: Identify opportunities to utilize technology and signals to increase safety at signalized intersections such as leading pedestrian intervals, pedestrian only phases

OBJECTIVE: Seek opportunities through tactical urbanism that explore **low-cost, creative solutions** for providing additional pedestrian safety

OBJECTIVE: Improve **lighting** on the CKC, on higher volume streets and in areas of low light pedestrian corridors where high pedestrian use is expected

OBJECTIVE: Make getting around on foot intuitive by planning and installing a pedestrian **wayfinding** system to and from the CKC and to other destinations

OBJECTIVE: Enhance pedestrian and bicycle facilities along Lake WA **Waterfront**

OBJECTIVE: Achieve a Platinum Walk Friendly Communities rating consistent with the goal in the Sustainability Master Plan.

OBJECTIVE: Monitor sidewalk **conditions** and repair as needed and ensure major obstructions are addressed. Continue to engage with the community to ensure people do not obstruct sidewalks and pedestrian facilities through parking, trash bins, etc.

Goal 2: Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such activity centers, parks, and transit.

OBJECTIVE: Complete a connected spine network of safe high comfort cycling facilities such as protected facilities, separated trails or pathways, neighborhood greenways and a denser network of additional bike lanes or other on-road bike facilities.

- Strategy: Seek opportunities to separate existing and future bike facilities on arterials from motor vehicle traffic with buffers or greater protection such as a curb, delineators or other more durable barriers. Use best practices when designing bicycle facilities.
- Strategy: Maintain all bike lane symbols, striping, green paint and buffers paint and ensure all bike lanes have bike symbols
- Strategy: Continue to look for opportunities to modify channelization markings to provide more street space for people bicycling.
- Strategy: Continue to build a network of greenways

OBJECTIVE: Make bicycling safer at controlled and uncontrolled intersections

- Strategy: Ensure all bike lanes connect to and through signalized intersections
- Strategy: Paint green lanes through controlled and uncontrolled intersections for all bike lanes on arterials
- Strategy: Make protected intersections a priority with major capital improvements
- Strategy: Paint green lanes where bike lanes cross dedicated right turn lanes
- Strategy: Consider two-stage bike boxes where high rates of left turn bike movements are expected

OBJECTIVE: Seek opportunities through tactical urbanism that explore low-cost, creative solutions for providing additional bicycle safety

OBJECTIVE: Ensure bike facilities are unobstructed and bike routes are accommodated through construction.

- Strategy: Accommodate bicyclists through construction zones by providing appropriate warning and detour signage, and temporary facilities where needed for improved safety for city-managed CIP projects. Work with developers to ensure the same accommodations are made through privately managed construction.

- Strategy: Coordinate with enforcement and communications team on community outreach to ensure people do not park in or obstruct bike facilities with trash bins or other obstructions.

OBJECTIVE: Ensure bicycling in Kirkland is intuitive through maps and wayfinding

- Strategy: Consider additional wayfinding that help cyclists navigate to nearby neighborhood greenways or other low volume bicycle routes. This would supplement other wayfinding on Greenways and other pedestrian wayfinding to access the CKC and other destinations.
- Strategy: Ensure the bike map is regularly updated and easily accessible through a variety of formats

OBJECTIVE: Explore opportunities to utilize technology to improve bike safety and accommodation

- Strategy: Upgrade bicycle detection system or other detection options at signalized intersections
- Strategy: Explore signal timing improvements that bicyclists such as leading intervals, bike only phases

OBJECTIVE: Continue to monitor the market to seek a bike share program for the city or as an option for access to high-capacity transit

OBJECTIVE: Achieve a Platinum Bicycle Friendly Communities rating consistent with the goal in the Sustainability Master Plan.

OBJECTIVE: Update bicycle parking policy and programs to ensure parking is available at both ends of bike trips:

- Strategy: Work with the planning department to update bike parking policy as it relates to long term parking (at transit facilities, residential buildings and other development)
- Strategy: Assess short-term parking needs in right-of-way to ensure short-term bike parking is available near amenities and at key destinations
- Strategy: Explore opportunities for bike parking at special events
- Strategy: Work with transit agencies to add secure bike parking at transit centers

Goal 3: Encourage and incentivize more people to walk and bike, encourage safe behavior for all users of the transportation system.

OBJECTIVE: Encourage and incentivize more people to walk and bike through education and encouragement activities (special events, Bike Everywhere Day, social media)

- Strategy: Conduct outreach with community groups, colleges in the city with encouragement and incentive programs
- Strategy: Continue to promote and grow the Kirkland Green Trip program

OBJECTIVE: Coordinate with Lake Washington School District and with the objectives in the Safer Routes to School Action Plans on communication, education, encouragement and activities focused on children taking active transportation to school and for other trips.

- Strategy: Participate in walk and bike to school month/ days
- Strategy: Coordinate with school resource officers by supporting pedestrian and bike safety curriculum that they can bring into the classrooms
- Strategy: Utilize the bike trailer received by Lake Washington School District (in coordination with the City of Kirkland) for special events and bike training education for kids

OBJECTIVE: Provide travel information about how people can get to downtown, special events and other activities through alternatives to driving.

OBJECTIVE: Coordinate with parks on opportunities for increase bike and pedestrian education such as a bicycle traffic garden for youth education

OBJECTIVE: Coordinate with communication team on public messaging related to pedestrian and bicycle safety education, sharing the road, safe travel behavior in general as well as encouragement and travel information

Supportive Goal 1: Achieve the Master Plan Vision of the Cross Kirkland Corridor.

The Cross Kirkland Corridor Master Plan outlines the community's vision for the corridor and will be used to guide development of the trail as well as transit and utility alignment. The plan also includes the location of access points, types and locations of amenities, and how road crossings and mixing zones are handled. The Master Plan was adopted by the City Council in June 2014. The Active Transportation Plan identifies some strategies for assessing where we are now and moving forward to implement the master plan but the Master Plan retains its own body of work and recommendations. The city will continue to monitor and take advantage of opportunities to further develop the trail (such as when new development occurs) and will begin to identify the next stages for capital project development.

OBJECTIVE: Create a Cross Kirkland Corridor Implementation / Action Plan that addresses the remaining unfinished investments noted in the CKC Master Plan

- Strategy: Identify unfinished connections and prioritize for future investments
- Strategy: Upgrade maps and other signs on the trail to encourage safe behavior and facilitate wayfinding to make access to destinations intuitive

Supportive Goal 2: Implement the recommendations in the Vision Zero Action Plan.

In 2015, Council adopted a Vision Zero policy to reduce serious injuries and fatalities in Kirkland by 2035. The Vision Zero Action Plan is being developed to identify strategies for how the City can reduce crashes in the city. There are some overlapping recommendations with the ATP but other actions noted only in the Vision Zero Action Plan still have benefits for people walking and bicycling by making our streets and communities safer. Specific strategies related to the Vision Zero objectives are found in other goals in the ATP framework. The following objectives mirror the Vision Zero Action Plan framework:

OBJECTIVE: Prioritize Safe Street Design and Investments
OBJECTIVE: Operate Safe Streets

OBJECTIVE: Promote and Institutionalize a Culture of Safety

OBJECTIVE: Build a Robust and Transparent Data Framework

Supportive Goal 3: Utilize technology to support safety measures and supplement safe networks.

Technology can play a significant role in making transportation efficient and effective. For example, technology can help ensure people walking and bicycling have fewer interactions with drivers at signalized intersections. In addition, better understanding the number of people walking and bicycling in the city as well as where crashes occur can better facilitate decisions for where the needs are greatest. This information also helps the city make the case for new infrastructure through current programs or when seeking outside grant funds.

OBJECTIVE: Utilize opportunities with Intelligent Transportation Systems (ITS) infrastructure to facilitate safety improvements at signalized intersections

- Strategy: Explore opportunities with leading pedestrian/bike intervals, pedestrian/bike only phases
- Strategy: Explore technology that can better detect people bicycling on the roadway or pedestrians at crossings
- Strategy: Consider advances in technology that better accommodate people with disabilities

OBJECTIVE: Develop a program to gather bicycle volume at key points in the City in a manner that is meaningful for measuring safety and ridership trends.

- Strategy: Invest in permanent counters at various places along the Cross Kirkland Corridor
- Strategy: Upgrade signalized intersection counts to improve data analytics of pedestrian and bicycle volumes
- Strategy: Expand current count program to better measure other areas of the city not currently covered by existing count programs and to facility before/ after counts of projects.

OBJECTIVE: Build a Robust and Transparent Data Framework

- Strategy: Develop a dashboard on the city website to better communicate pedestrian and bicycle volumes, trends as well as crash data

Supportive Goal 4: Implement the recommendations in the Safer Routes to School Action Plans.

The City worked in partnership with the Lake Washington School District, law enforcement, design professionals, students, parents, and neighborhoods to identify key steps to make walking, rolling, and riding the bus to school safer and more convenient. The outcome of this process was the development of the Safer Routes to School Action Plans (SRTS) for each neighborhood in Kirkland. These plans address education and encouragement, enforcement, evaluation and also identify projects based on equity and engagement that better connect kids to schools.

The development of the Active Transportation Plan was coordinated with the SRTS Action Plan development in terms of outreach and project development. While there is significant overlap, the ATP does not focus on school access because of this specific body of work. However, the ATP does prioritize projects that overlap SRTS projects in order understand multiple benefits.

CHAPTER 2: COMMUNITY VOICES - SUMMARY OF PLANNING PROCESS AND PUBLIC ENGAGEMENT

ENGAGEMENT SUMMARY

The update to the Active Transportation Plan (ATP) began in 2019 with some initial engagement activities such as community meetings and an on-line survey. Timeline for this update was extended due to COVID-19 pandemic related delays. In 2021, staff restarted an extensive public outreach schedule that included over 20 meetings with various groups throughout the year. These engagement efforts included:

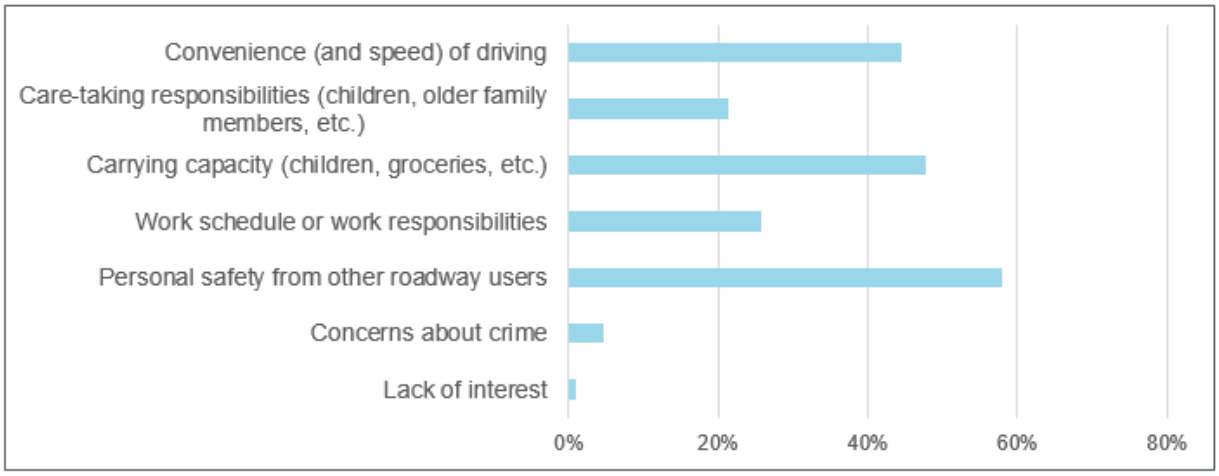
- Neighborhood association meetings
- Interest group meetings
- Community meeting at City Hall (pre-pandemic)
- City Hall for All event (2021)
- Virtual community meetings
- Online public comment form
- Story Map and interactive Web Map

The virtual community meetings, survey and opportunities to comment on the webpage were advertised using social media, email lists and through This Week in Kirkland publication. The Transportation Commission was also briefed six times throughout the process prior to the release of the draft plan and staff engaged with the City Council at their April 20, 2021 study session.

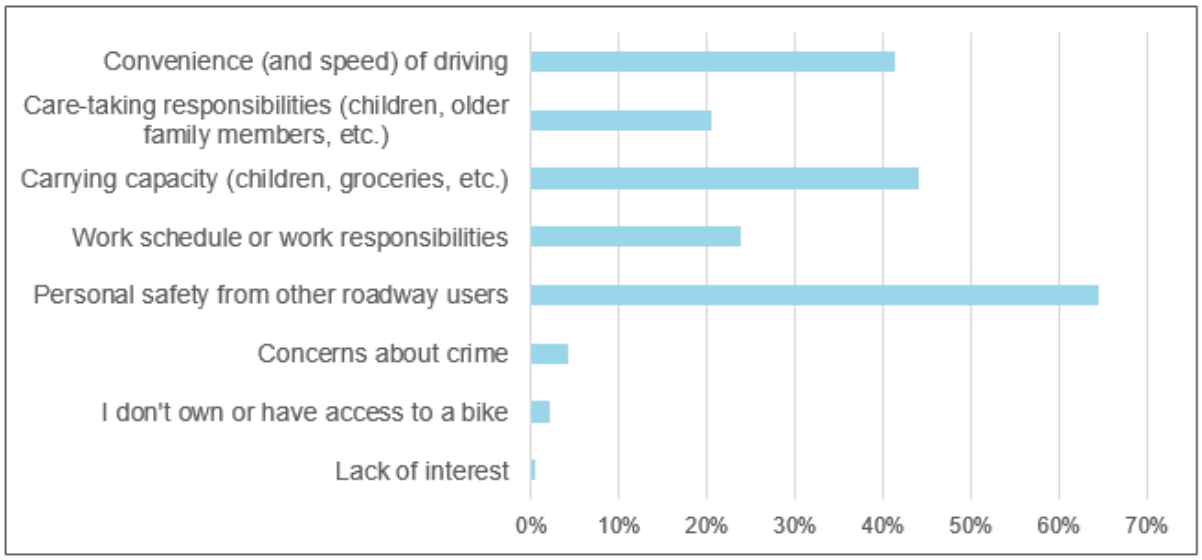
SAFE AND ACTIVE TRANSPORTATION SURVEY

Between November 2019 and January 2020, the city conducted a Safe and Active Transportation survey to inform both the Active Transportation Plan and the Safer Routes to School Action Plans. This survey received 1,278 responses. The two charts below show what the city heard from people who are interested in walking or bicycling more. See Appendix B for full survey results.

For those that are interested in **walking** more, what impacts your decision to walk more often?



For those that are interested in **bicycling** more, what impacts your decision to bike more often?



KEY TAKE-AWAYS

The city heard the most from the public regarding concerns about safety. These comments were varied but may of them included concerns related to:

- lowering speeds
- greater pedestrian connectivity and lack of or disconnected sidewalks in some areas
- separation of modes such as the greater need for protected bike lanes
- need for improved crossings
- human behavior such as cars failing to yield to pedestrians

The city also received many project / location specific comments and quite a few questions. Some questions/ general comments included:

- appropriate use electric bikes and scooters in bike lanes and on sidewalks
- trade-offs between parking and other uses of right-of-way (people suggested to remove parking in lieu of bike lanes, others expressed concern about parking availability)
- need to ensure bike lanes and sidewalks are not blocked by cars, trash bins or debris

This engagement process, combined with needs and network analysis are used to inform the program and policy recommendations and the bicycle and pedestrian network and facility recommendations.

See **Appendix A** for more information about the public engagement process and survey results

CHAPTER 3: WALKING AND BICYCLING IN KIRKLAND TODAY

Since the Active Transportation Plan was adopted in 2009, the City annexed three previously unincorporated districts north of the city, Finn Hill, North Juanita, and Kingsgate. The annexation added 33,000 residents and nearly 7 square miles to Kirkland in 2011. The city has also seen unprecedented growth and development, particularly in Totem Lake, Juanita and downtown Kirkland. Future development is planned for the station area adjacent to the I-405/ 85th Station Area anticipating future Bus Rapid Transit service along I-405. As Kirkland continues to grow and add population it will be increasingly important to provide people with a range of safe and convenient transportation options, including walking and biking to get to destinations. There simply is not enough space within Kirkland's public rights-of-way to accommodate a growing number of automobile trips without resulting in severe congestion.

Evenings on Park Lane

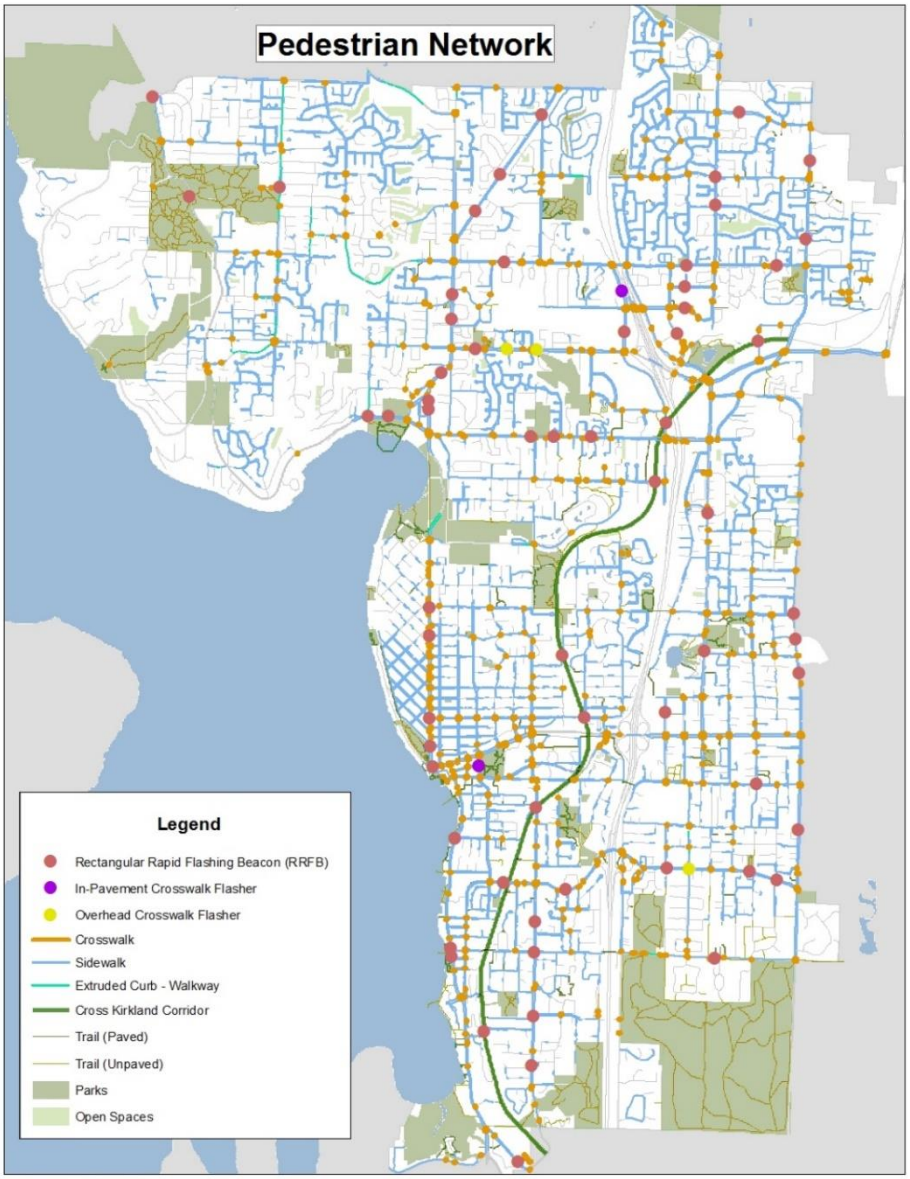
Park Lane in downtown Kirkland was originally designed to be a "flexible street" and has previously been closed to vehicles during select special events. In coordination with the downtown community during the summer and fall in 2020 and 2021, the City started "Evenings on Park Lane" where the street was opened to people walking and wheeling beginning at 6 PM. Restaurants expanded seating in parking spaces and the evening closure to vehicles was well received by the community.

City Council will continue to evaluate future closure to vehilces, whether that continue to remain in the evenings and for special events or for longer periods of time.

WHAT IS IT LIKE TO WALK IN KIRKLAND TODAY?

Currently, almost 86% of Kirkland's arterials and 81% of collectors have sidewalks on at least one side of the street. In some cases, the city uses extruded curbs to identify walkways as an interim treatment where no sidewalk currently exists. Many of these are on school walk routes.

When the 2009 ATP was adopted, the objective was to complete sidewalks on one side of all arterials. At that time, the city had not yet annexed the three previously unincorporated districts north of the city, Finn Hill, North Juanita, and Kingsgate. As the city evaluates how well this objective has been met, these annexed areas are included in this evaluation. Of the remaining sidewalk gaps on one side of arterials, 42% of those gaps are in the annexed areas.



The city has also installed 63 Rectangular Rapid Flashing Beacons (RRFB's), three overhead crosswalk flashers (two of which are funded to be upgraded) and two in-pavement crosswalk flashers. The overhead and in-pavement flashers are those identified to be upgraded.

In addition to the sidewalk network and crossing treatments, the city has a number of paved and unpaved pathways that connect through neighborhoods and break-up long blocks. Many of these pathways include numerous access points to Lake Washington. As future development occurs, Kirkland's Citywide Connections Map identifies additional neighborhood connections that will be added to this system.

PEDESTRIAN NETWORK ANALYSIS

The pedestrian network in Kirkland is comprised of many different parts, including sidewalks, trails, short neighborhood connections, curb ramps and other intersection crossing infrastructure, as well as all the destinations that people access by foot, which is to say, just about everywhere in Kirkland. A key focus of this

Plan is to identify improvements to increase safe and convenient access to transit, activity centers, parks and to the Cross Kirkland Corridor.

Planned Pedestrian Network

The planned pedestrian network aims to fill critical sidewalk gaps and strategically enhance street crossings that currently impede access to transit, activity centers, and parks and impact safe and comfortable pedestrian travel. As stated above, there are many other features that comprise the pedestrian network, which are also a focus for the City. For example, curb ramps and other infrastructure that improves access for persons with disabilities are acknowledged in the City's *Pathway to Transition*, a step towards developing a Transition Plan for improvements that need to be made to bring the City into full compliance with Title II of the Americans with Disabilities Act. The *Safer Routes to School Action Plans* identify improvements specifically for increasing access to schools, many of which also improve access to other destinations in Kirkland. The City has also developed a Citywide Transportation Connections Map that identifies pathways to improve network connectivity. The Cross Kirkland Corridor is another facility that contributes significantly to Kirkland's pedestrian network. More work is being done by the City and its partners to improve connectivity to the trail such as the Totem Lake Connector and more localized neighborhood connections.

Sidewalk Gaps

Kirkland has made significant progress in meeting its policy goals focused on building out the sidewalk network along major streets, but there are still some important gaps to be filled. This plan identifies remaining sidewalk gaps, which are shown in Figure XX. Many remaining sidewalk gaps are on neighborhood streets that don't provide through connections or access to community destinations. Still others are along major streets with transit, within activity centers, or along other streets that provide direct access to these destinations, as well as parks. Sidewalk gaps were analyzed to determine which gaps, if filled, would provide the greatest benefits in terms of providing access to transit, activity centers, and parks. These high benefit sidewalks were then grouped into logical extents (Figure XX).

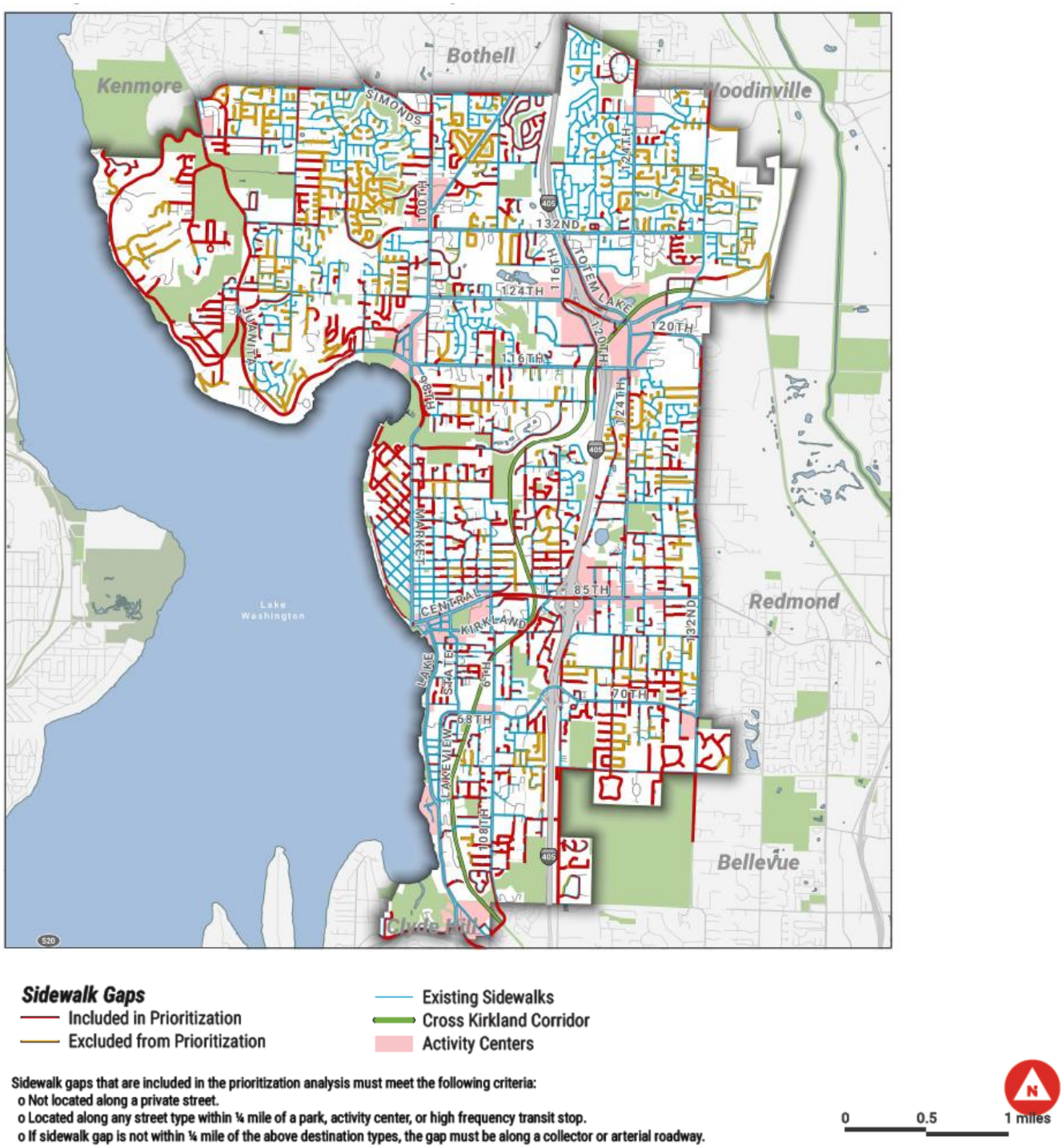


Figure XX – Remaining Sidewalk Gaps

Street Crossings

Being able to cross major streets without having to go too far out of direction and with confidence that drivers will stop or yield are two important factors that support walking. Kirkland has been a model for making street crossings safer and more convenient for people walking with its pedestrian flag program and widespread deployment of safety treatments such as crossing islands and rapid flashing beacons. There is still work to do. This plan identifies where additional street crossing enhancements are needed to improve access to high

frequency transit, activity centers, and parks. Similar to sidewalk gaps, there are street crossing enhancements identified in the *Safer Routes to School Action Plans* which also provide broader pedestrian network benefits and improve community access and safety.

WHAT IS IT LIKE TO BICYCLE IN KIRKLAND TODAY?

Kirkland has a growing bikeway network consisting primarily of bike lanes. Over time, the city has worked to add buffers to many bike lanes and green paint marking where the bike lane intersections.

The City has recently implemented the first of two neighborhood greenways – NE 75th St and 128th Ave NE – which are slated to be completed in early 2022. Taken together, these two greenways greatly improve all ages and abilities accessibility in the Rose Hill neighborhood. Neighborhood greenways prioritize a select network of residential streets for people of all ages and abilities to feel safe to walk and ride bicycles. These are often streets with low speeds and volumes that can provide a comfortable alternative to bike lanes on busy arterials.

The Cross Kirkland Corridor is a wildly popular trail facility that attracts mainly recreational walking and biking. As it becomes more integrated with the on-street bicycle network, and eventually is paved, it will play an increasingly important role in the bicycle network.

Table XX summarizes the mileage of the various bikeway types that comprise Kirkland's bicycle network. Figure XX shows Kirkland's existing bicycle network.

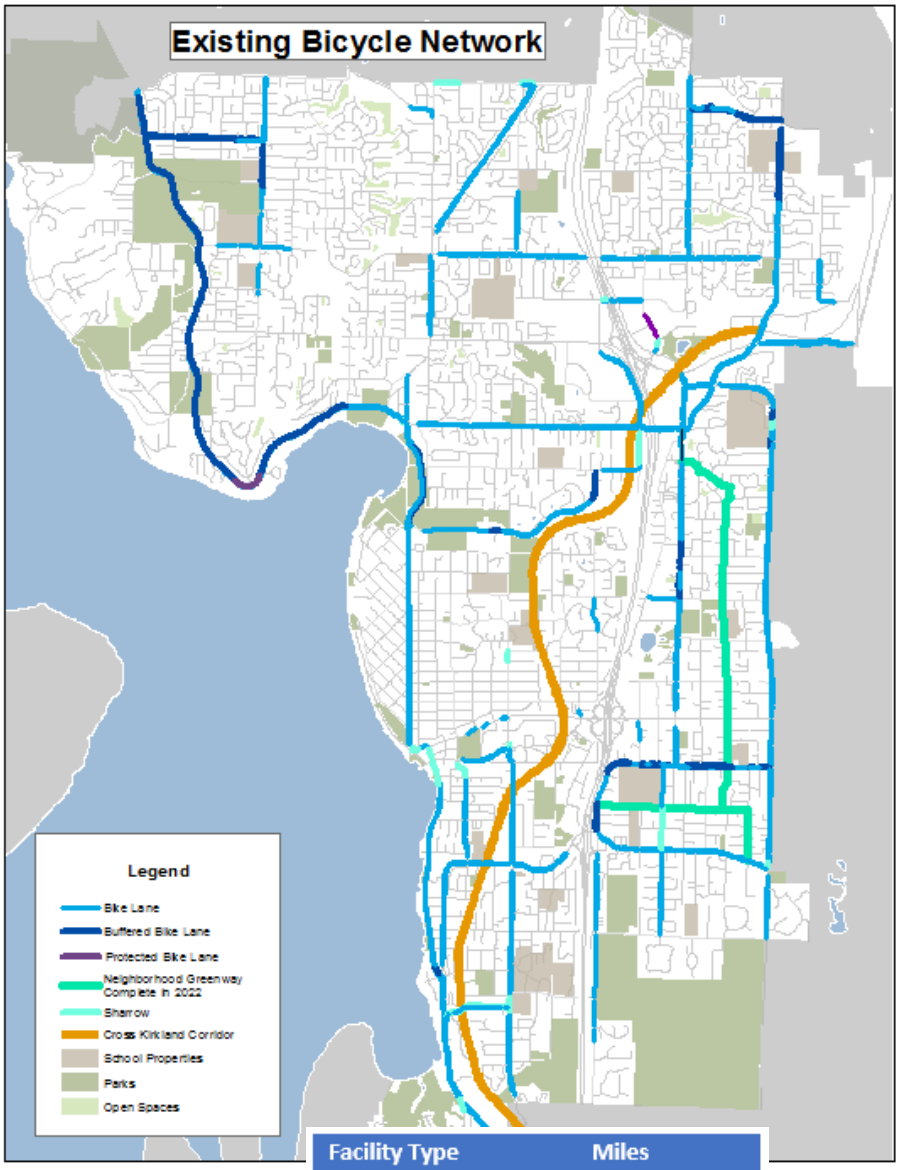


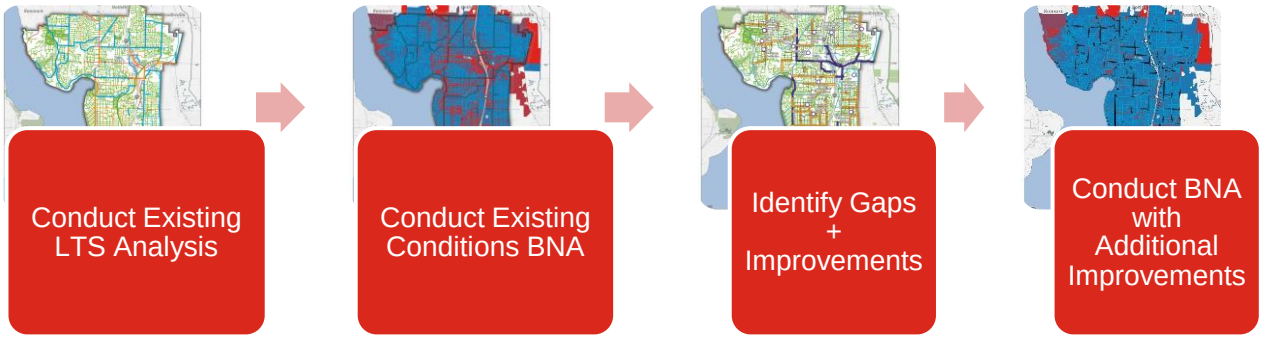
Table XX – Existing Bikeway Mileage

Facility Type	Miles
Bike Lane	55.97
Buffered Bike Lane	8.62
Protected Bike Lanes	0.19
Shared Lane Markings	2.08
Grand Total	66.86

Low-Stress Network Connectivity Analysis

A network analysis was conducted to determine how well the existing and planned network from the 2015 TMP provide connections to community destinations using “low-stress” bikeways, i.e., bikeways that less confident/more cautious bicyclists would feel comfortable using. An example of a low-stress bikeway would be a buffered bike lane on a street with a 25 MPH speed limit and not large amounts of traffic.

This analysis begins by assessing the level of stress (LTS) that takes into account the speed and volume of the roadway as well as existing bicycle facilities. Then, connectivity is assessed to see how well the existing network connects to destinations through unbroken low-stress routes. This is called the Bicycle Network Analysis (BNA). This process identified areas of Kirkland that are not well-served by low-stress bicycle connections. Areas with a low BNA score were assessed to determine what bicycle facility improvements are needed to create a low-stress connection, which informed the network recommendations of the ATP update presented in the next chapter.



Key Takeaways from the Bicycle Network Analysis Include:

There are few, yet significant areas, where existing and planned bicycle facilities (per the 2015 TMP) result in a low BNA score i.e., are not well-connected with low-stress bicycle facilities. These include:

- Totem Lake area
- Highlands neighborhood
- Finn Hill
- Portions of the Moss Bay, Everest, Market and South Juanita neighborhoods

This low connectivity is a result of one or more high-stress streets that provide critical connections to and from the neighborhood (e.g., NE 124th St, Market St, 116th Ave NE) or need to be crossed. In some cases, there are alternative connections within a reasonable distance of these high-stress corridors where it may be difficult to implement low-stress bikeways given space constraints, while in other cases there are not good alternatives. For example, providing a low-stress bicycle connection on NE 124th St would greatly improve connectivity to the Totem Lake area for many people. However, it would be challenging to install a low-stress bikeway on NE 124th St in the near-term given the volumes of traffic on that street and limited space. NE 116th St and NE 128th St offer alternative east-west connections that would greatly improve the Totem Lake area’s overall connectivity to the citywide network and are more feasible to implement low-stress bikeways.

Kirkland's Existing Bicycle Network is Mostly for Confident Bicyclists

Currently, the majority of Kirkland's neighborhood street network provides low-stress conditions; meaning they are streets that either don't have high vehicle speeds or volumes (mostly neighborhood streets). However, many of these streets are discontinuous and do not offer direct connections for bicyclists or have grades that present challenges for the casual bicyclists or families. Many of Kirkland's existing bike lanes do not offer a low-stress riding experience primarily because they do not provide sufficient separation given the speed and volume of adjacent motor vehicle traffic. These "higher stress" bikeways are displayed as orange and red in Figure XX. There are existing bike lanes (blue lines) that offer sufficient comfort for many adults, but these mostly occur as isolated segments, which can create stressful conditions for less confident bicyclists. The Cross Kirkland Corridor and new neighborhood greenways offer the lowest stress riding experience and are considered appropriate for people of all ages and abilities.

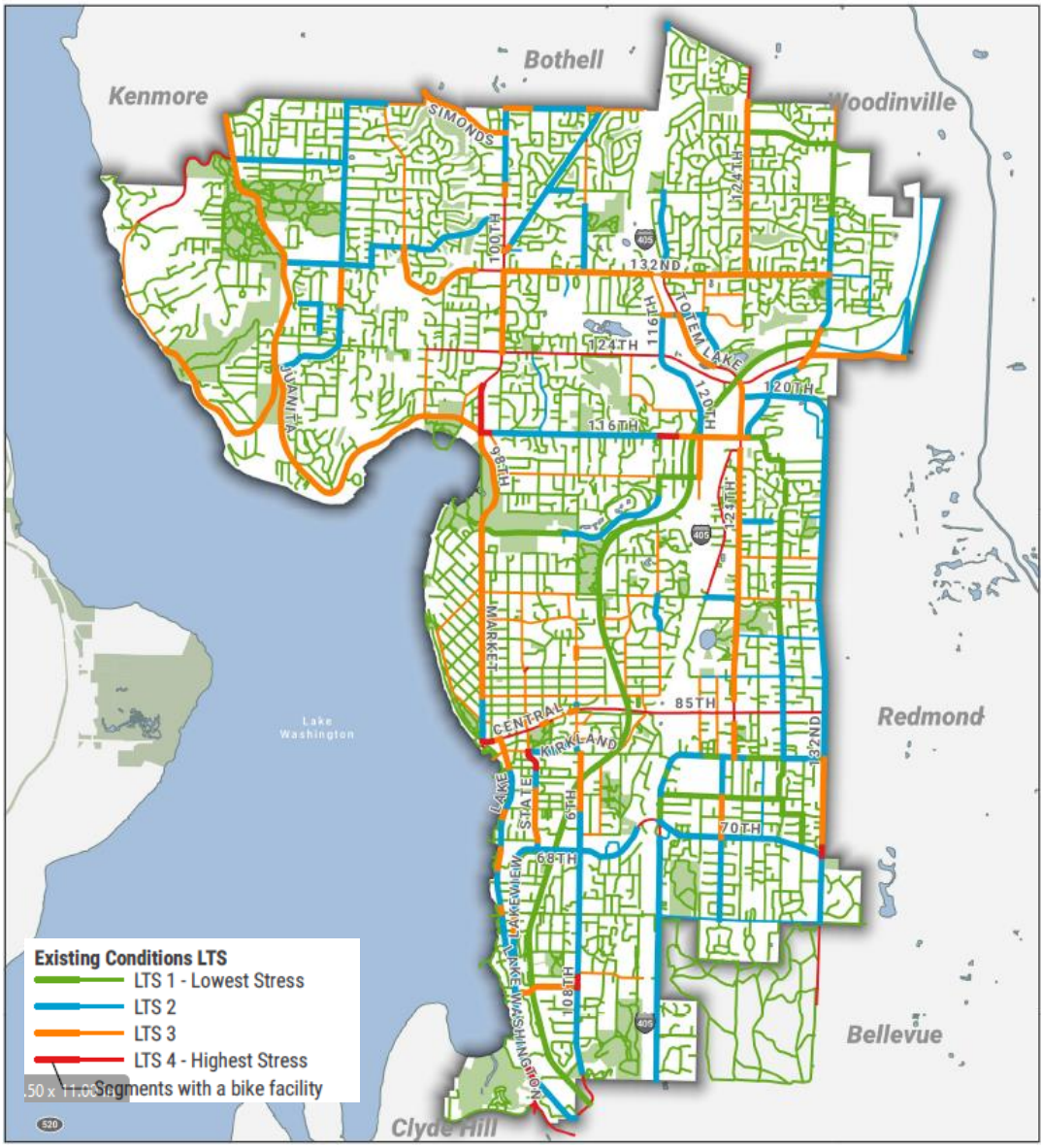


Figure XX – Level of Traffic Stress on Existing Network

Crashes Involving People Walking and Biking

Every year dozens of people walking and bicycling in Kirkland are involved in collisions. Fortunately, many of these collisions don't result in injury, but far too many do. Three people who were walking were killed and another 25 were seriously injured in traffic collisions between 2015 and 2019. During the same period 11 bicyclists were seriously injured in traffic collisions. Figure XX shows the total number of collisions involving people walking and bicycling. On average there are nearly 60 collisions per year involving people walking or bicycling. Over a five-

year period bicycle and pedestrian collisions comprise 18% of all collisions, yet represent a small fraction of all trips taken in Kirkland. Figure XX shows the disproportionate share of serious and fatal injuries among people walking and bicycling.

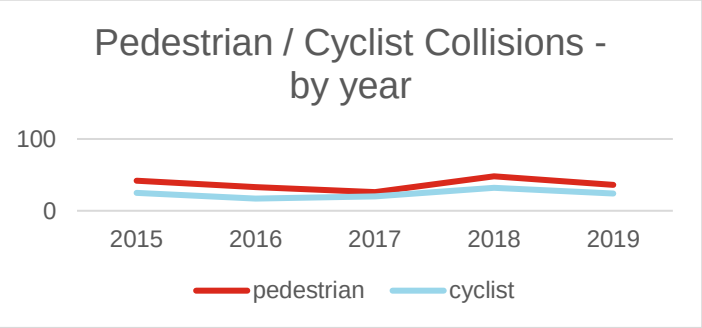


Figure XX – Pedestrian and Cyclist Collisions by Year (2015-2019)

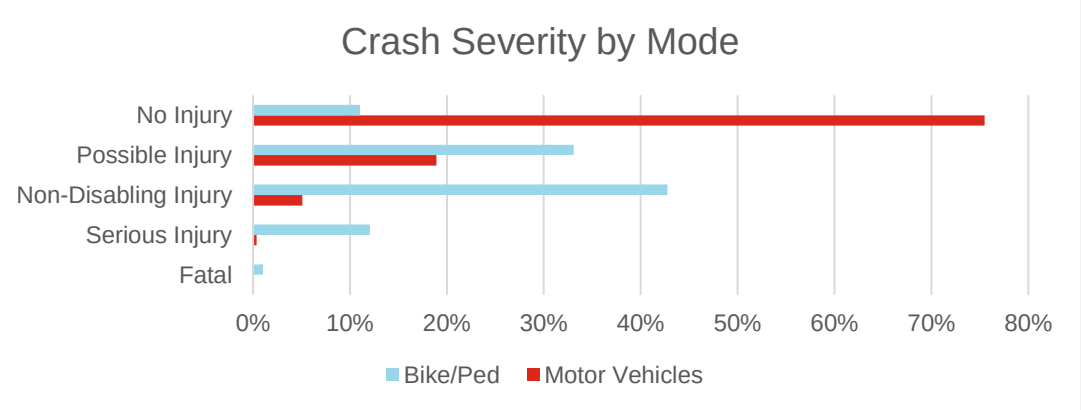


Figure XX – Crash Severity by Mode

People of all ages and abilities are making trips on foot or with mobility assistance devices in Kirkland. While the majority of people walking involved in traffic collisions are in the 21 to 60 year old range, about one-third are children or older adults. Figure XX shows the distribution of pedestrian collisions by age.

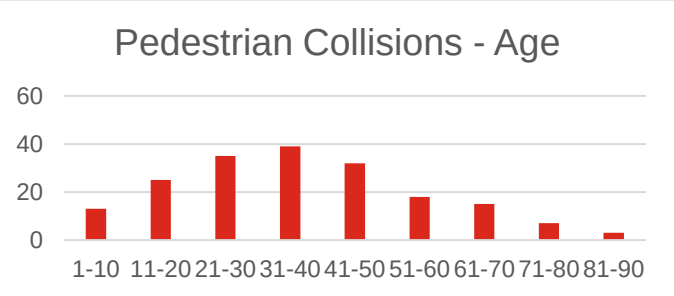


Figure XX – Pedestrian Collisions by Age

CHAPTER 4: THE FUTURE OF WALKING AND BICYCLING IN KIRKLAND

This plan outlines two specific goals focused on completing pedestrian and bicycle networks.

Goal 1: Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.

Goal 2: Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such activity centers, parks, and transit.

As stated above, the ATP will focus on access in public right-of-way and will focus on access to activity centers, transit, parks and to the Cross Kirkland Corridor. Other city plans focus on access to and through parks and green spaces as well as access to schools. The ATP is consistent with the 10-minute neighborhood concept where a focus is on accessing destinations within a reasonable 10-minute walk. The ATP project prioritization process assess access to destinations within that framework of a reasonable walk distance to destinations.

10-Minute Neighborhoods

A 10 minute neighborhood is a community where residents can walk short distances from home to destinations that meet their daily needs. These walkable communities are comprised of two important characteristics:

- Destinations – a walkable community needs places to walk to. Destinations may include places that meet commercial, educational, recreational, or transportation.
- Accessibility – the community needs to be able to conveniently get to those destinations.

The pedestrian network analysis and the bicycle network analysis identify where the gaps are in creating walk and bike networks that are connected and comfortable. However, the needs are great so the city must evaluate how best to prioritize projects that should be addressed first to meet the ATP goals.

PROJECT PRIORITIZATION

Prioritizing projects helps guide investments toward projects that provide the greatest benefits. In addition, the prioritization process can help identify projects and their applicability to different grant and funding opportunities. Both bicycle network and pedestrian network recommendations were prioritized by access to activity centers, parks, transit and to the Cross Kirkland Corridor. Schools were included as access points for the bike network prioritization and pedestrian projects received a higher score when overlapping the Safer Routes to School Action Plan recommended projects. Access to transit routes that are more frequent were prioritized higher than other transit routes. Activity Centers are those places that are zoned for commercial and mixed-use land uses. Crash rates were also used to evaluate safety as an additional measure.

This process also considered the bike level of traffic stress and network analysis (BNA) noted in Chapter 3. For both the bike and pedestrian prioritization, equity was also a key component. Areas with higher concentration of people of color, people with low-incomes, people with disabilities were prioritized.

Access to transit routes that are more frequent were prioritized higher than other transit routes.

Activity Centers are those places that are zoned for commercial and mixed-use land uses.

More detailed information about the prioritization process can be found in **Appendix B**.

Pedestrian Project Prioritization and Recommendations

Pedestrian projects were prioritized based on walk distances to destinations identified above. This prioritization process identified both a set of prioritized sidewalk gaps and investments needed but also a set of crossings that help to complete pedestrian networks.

OBJECTIVE: Prioritize **sidewalk gaps** that connect people to activity centers, transit, parks and the Cross Kirkland Corridor

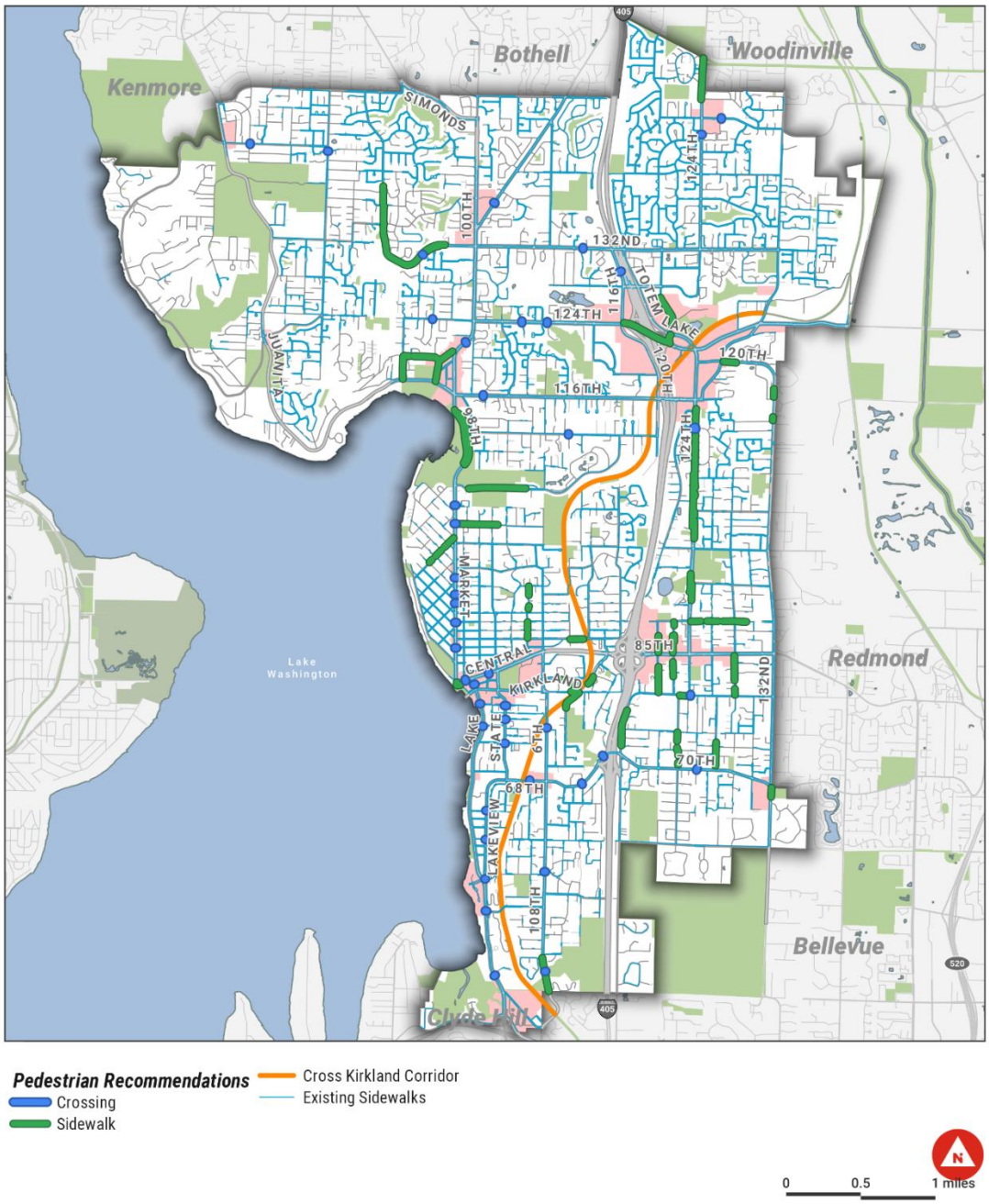


Figure XX – Planned Pedestrian Crossing and Sidewalk Network Improvements

Crossings of the Cross Kirkland Corridor (CKC) were not included in this analysis. There are two crossings of the CKC that the city will be working on which is the crossing at 132nd Ave NE/ Slater and the crossing at Willows

Road coinciding with the completion of the interim trail between 132nd Ave NE and Willows Road by King County expected to be complete in 2022.

Table XX: Prioritized Crossings

The plan identified 44 high priority **crossings**. The list below highlights the top 10.

Crossing Name
Lake St - 2nd Ave S
Lake St - 5th Ave S
Central Way - Main St (funded)
Lake Wash Blvd - North of NE 52nd St
NE131st Way - 94th Ave NE
Kirkland Ave - KPC
2nd Ave S - State St
NE 124th St - 105th Pl NE (funded)
NE 124th St - 108th Ct NE
Central Way - 1st St (funded)

The plan also identified 46 **sidewalk segments** that were prioritized using the framework described above. The top 20 are listed below:

On	From	To
124th Ave NE	NE 145th St	City Limits
NE 124th St	116th Ave NE	120th Ave NE
120th Ave NE	Totem Lake Blvd NE	NE 124th St
116th Ave NE	NE 73rd St	NE 75th St
116th Ave ne	NE 75th St	NE 75th Pl
Kirkland Way	East of CKC Bridge	W/O 2nd Ave
NE 90th St	124th Ave NE	128th Way NE
6th St W	13th Ave W	Market St
Railroad St	8th St S	Kirkland Ave
116th Ave NE	South of NE 75th Pl	North of 75th Pl
Forbes Creek Dr	NE 107th Pl	Market
98th Ave NE	Forbes Creek Dr	Old Market St Trail
120th Ave NE	N 85th St	NE 90th St
96th Ave NE	Old Market Street Trail	Forbes Creek Dr
126th Ave NE	NE 70th St	North of NE 73rd St
124th Ave NE	Slater Ave NE	NE 110th Pl
90th Ave NE	NE 134th St	North of NE 137th Pl
NE 120th St	93rd Pl NE	NE 120th Pl
122nd Ave NE	NE 73rd St	NE 70th St
90th Ave NE/131St Way/NE 132nd St	9600 Block	NE 134th Street

Maintaining existing sidewalks

As the city grows and expands sidewalk infrastructure, it is important to ensure those sidewalks are maintained and repaired if needed. The city conducted a sidewalk condition study in 2015 which identified approximately $23 million in needed investments. These were then prioritized into high-walkable areas and so far, the city is making progress toward addressing high-priority repairs and has progressed about 20% toward these needed investments, particularly in high-priority areas. Additional sidewalk repairs and replacements have occurred through development.

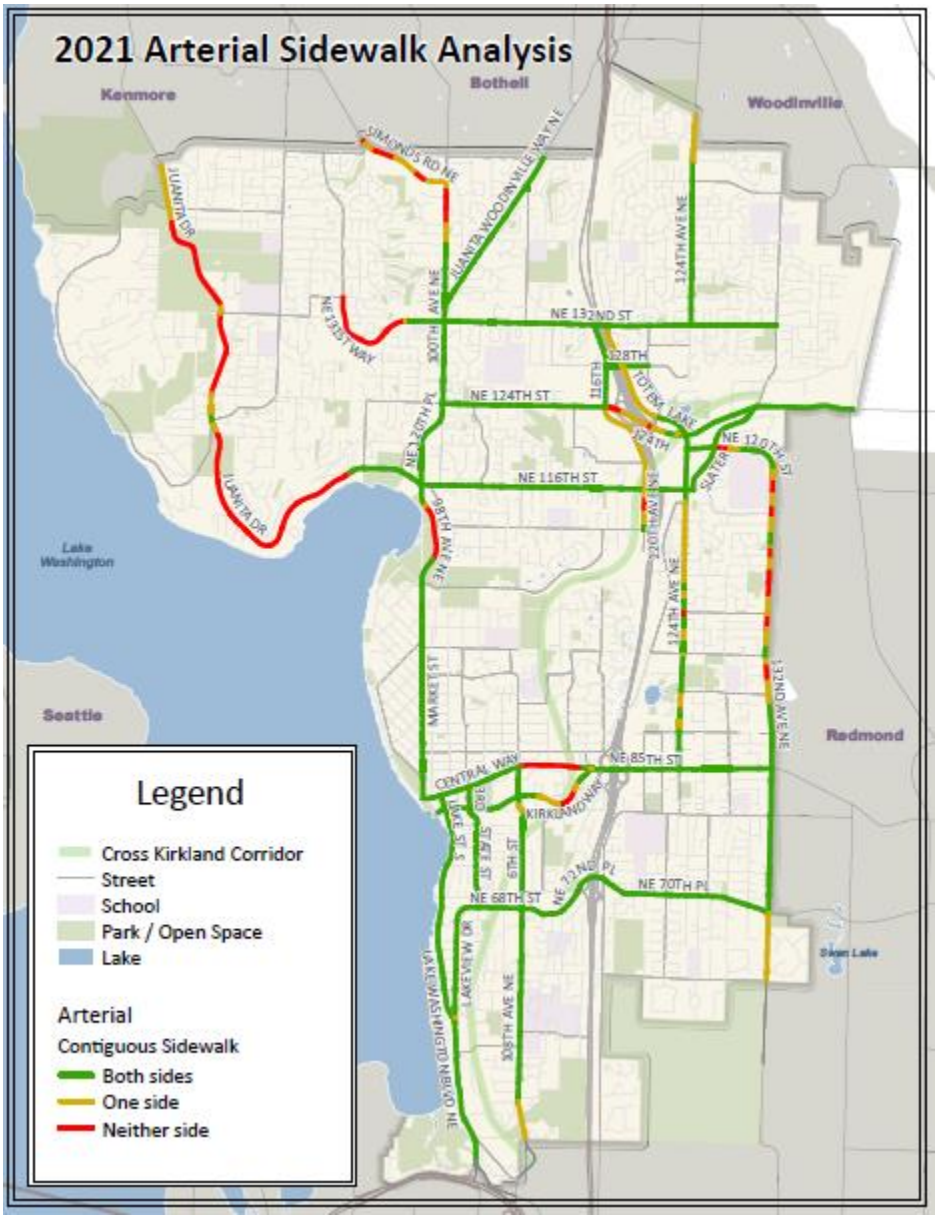
OBJECTIVE: Develop and operationalize a sidewalk repair program that includes periodic inventories to ensure the city maintains current and future sidewalks.

The objective in this plan aims to operationalize needed repair and ensure that they city can continue to track this inventory and progress made.

Additional considerations

Some additional considerations for the sidewalk network include meeting the stated goal in the 2009 Active Transportation Plan for completing sidewalks on one side of all arterials. The city has completed 85.78% (including annexed area) of this goal. Council could consider strengthening this goal to address both sides of arterials and/ or both sides of arterial transit routes. The pedestrian prioritization process described above outlines the greatest benefit for filling-in sidewalk gaps and waling connections but as the city starts to fill-in the prioritized gaps through public works projects or through development, these additional segments may be considered. Many of the segments noted in the map below also prioritized well as part of the prioritization process.

OBJECTIVE: Complete sidewalk on **both sides** of principal and minor arterials on transit routes. Complete at least one side of all remaining arterials.



Bicycle Project Prioritization and Recommendations

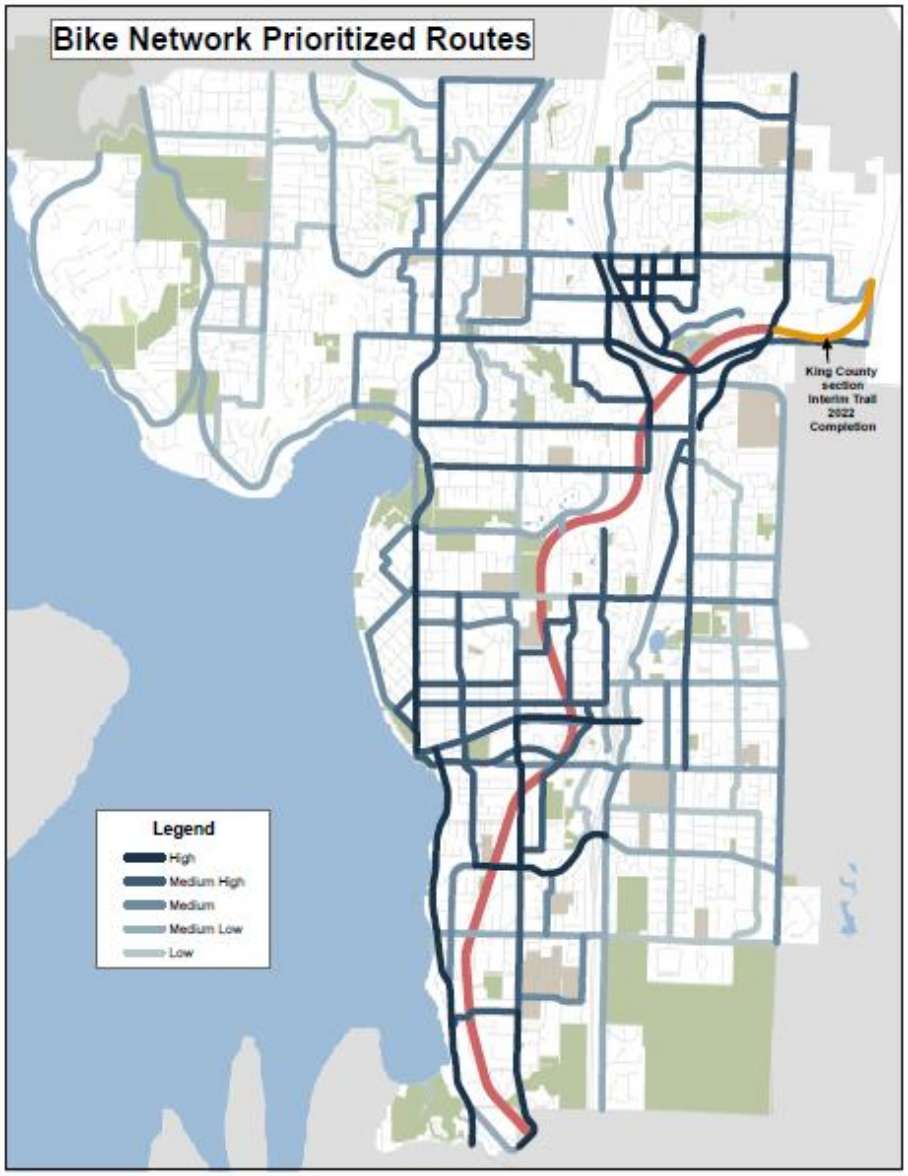
Bicycle projects were prioritized based three categories that are tied to the goals of the Plan:

- Connectivity- Does the bikeway support connectivity to transit and to/from areas where people are most likely to bike?
- Safety and Comfort – Does the bikeway address a location with a past collision (s) or improve comfort for bicyclists?
- Equity – Does the bikeway serve underserved neighborhoods?

OBJECTIVE: Complete a connected spine network of safe high comfort cycling facilities such as protected facilities, separated trails or pathways, neighborhood greenways and a denser network of additional bike lanes or other on-road bike facilities.

Figure XX shows the prioritized bicycle network. The higher a project scores for any given criteria, the greater benefit the project is likely to deliver.

Project benefits need to be weighed with project costs and the most likely mechanisms by which a project would be funded and constructed.



Planned Bicycle Network

There is much support among the Kirkland community for creating a bicycle network that people of all ages and abilities would feel comfortable using. The planned network includes low-stress facilities such as neighborhood greenways, buffered bike lanes on lower speed streets, and protected bike lanes. In some cases, where there is sufficient space, recommendations call for upgrading an existing bike lane to a buffered or protected bike lane.

Neighborhood greenways will play an important role in Kirkland's low stress bicycle network. In many cases, a neighborhood greenway provides a parallel, alternative route to a busier street where it would be difficult to implement a low-stress bikeway. Many of the neighborhood greenways in the planned bicycle network will require modifications to the streets, including traffic calming, removal of parking to improve visibility at street corners, and at intersections with major streets where crossings need to be upgraded for safety and convenience. Still others may require some level of traffic diversion to reduce the volume of cars to a level that is conducive for users of all ages and abilities.

A smaller portion of the planned network includes conventional bike lanes where there are severe space constraints. The City will evaluate these corridors over time, taking into account shifts in travel patterns or other opportunities that may make it more feasible to implement a higher comfort bikeway in the future. The City also plans to explore exploring speed limit policy and introducing traffic calming measures throughout its network, which would make corridors with conventional bike lanes more comfortable for more people.

Near-Term Planned Improvements:

For the most part, medium- or near-term strategies involve filling gaps in the planned bicycle network or improving existing bike facilities.

Most of these near-term strategies involve improvements that can be made within existing city right-of-way, either the existing paved right-of-way or unpaved / undeveloped areas but still within city-owned property.

For example, improvements to existing bike facilities could include extending existing bike lanes to intersections where they fall short, adding green conflict zone markings through intersections or along intersecting streets, buffering or protecting existing bike facilities if space can be made available through restriping or re-channelization, or completing missing gaps in the system.

These near-term strategies provide recommendations for developing the city's Capital Improvement Program over the first six-years of the plan horizon and/or inclusion into implementation programs (such as the striping

program). The prioritization process will be used as a tool to identify the highest priority investments based on the implementation strategy. The map shows existing and planned investments.

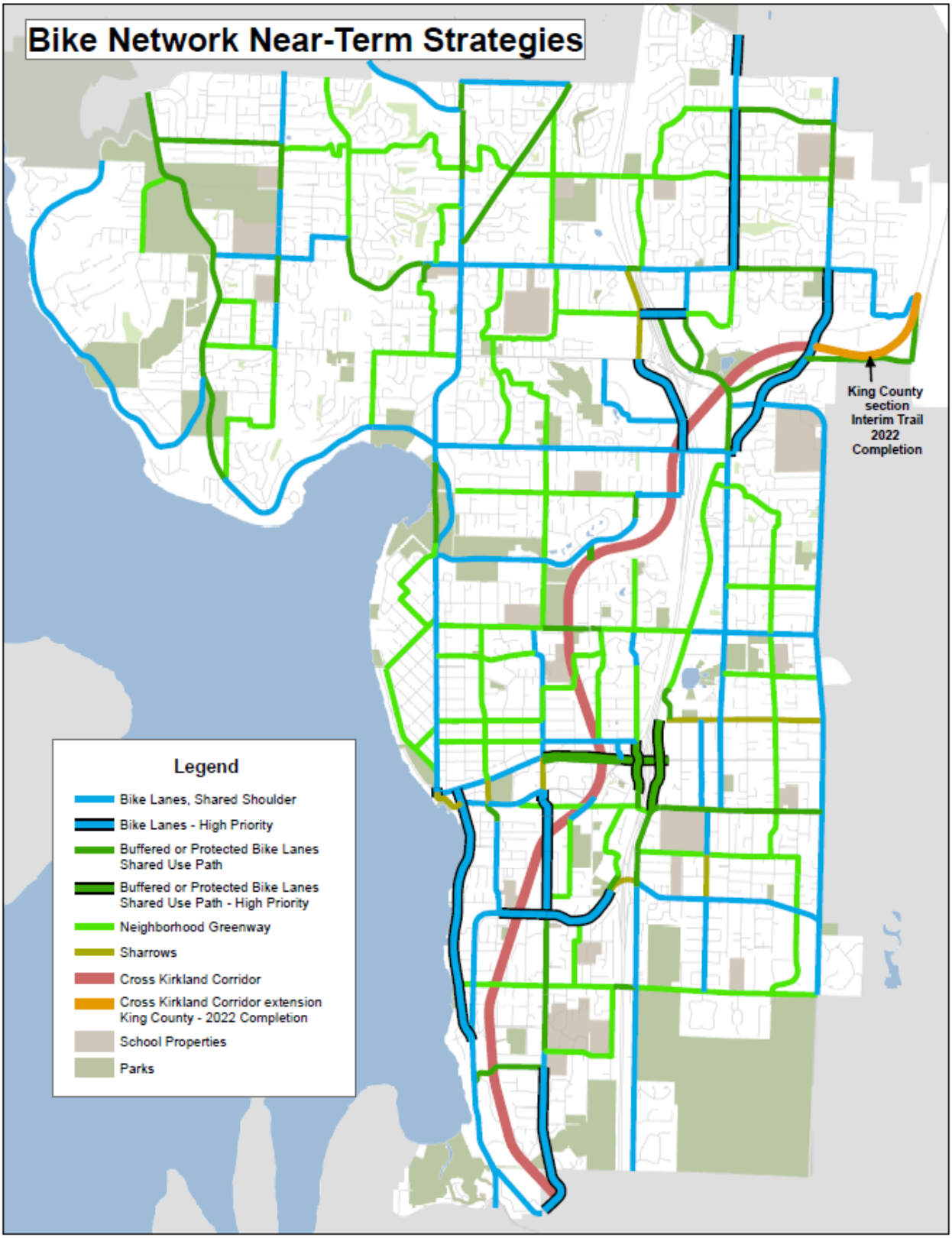


Table XX presents a list of recommended bicycle projects that show examples of **gaps** in the bike network that are scoring highest for future improvements. More detail can be found in **Appendix C** including proposed implementation strategies.

On	From	To	Near Term Strategy/ CIP	Long-term strategy
NE 85th St	6th St	I-405 Station Area	Shared-Use Path	Shared-Use Path
124th Ave NE (north)	NE 132nd St	north city limits	Add pavement markings to existing bike lanes and extend bike lanes where they currently do not exist. Buffer where there is room.	Protected Bike Lanes as development occurs. Additional right-of-way required.
120th Ave NE	NE 128th St	NE 132nd St	Uphill bike lane	Protected Bike Lanes as development occurs. Additional right-of-way may be required.
85th interchange area connections	Four quadrants of the I-405 / 85th Station Area		Shared Use Paths connecting to I-405 / 85th Station	
113th Ave to 120th/ 118th St	NE 124th St	120th Ave NE	Restripe to add bike lane or neighborhood greenway. Would need comprehensive review to bike lanes.	Evaluate as part of all-ages and abilities network. Volume and speeds are slow to warrant a protected bike lane but could be warranted as an all-ages and abilities bypass of NE 116th Ave. Additional right-of-way required.
7th Ave	Market St	6th St	Add neighborhood greenway type improvements	Evaluate greater protection. Concern with negotiating intersections with existing curb extensions, circles and appropriateness of protected bike lane with many driveways.
7th Ave	6th St	116th Ave NE	Uphill bike lane CKC to 116th	Buffered or Protected Bike Lanes. May require impacts to parking. Impact to driveways are a consideration.

Table XX presents a list of recommended bicycle projects that show examples of improvements to **existing** bike facilities that are scoring highest in the prioritization framework.

On	From	To	Existing Facility Type	Near Term Strategy	Long Term Strategy
Totem Lake Blvd	NE 124th St	120th Ave NE	Widened sidewalk/ shared-use path on east side	Add wayfinding and shared use signs for existing wide sidewalk	Protected Bike Lane southbound connecting to the Totem Lake Bridge Connector. Additional right-of-way required as development occurs.

Market St	Central Way	Forbes Creek Dr	Bike Lanes	Maintain green conflict zone markings. Provide protected space connecting Stores to Shores Greenway between 9th Ave and 2nd St W (pending final Greenway alignment). Conduct parking utilization and multimodal analysis as part of evaluation/ design with planned transit improvements.	Implement recommendations from additional study/ transit improvements design.
120th Ave NE	NE 116th St	NE 124th St	Bike Lanes	Add green conflict zone markings and add bike symbols to existing bike lanes. Complete bike lane to intersection at north end. Extend NB bike lane stripe to 116th St, add thermo bicycle symbols, remove sharrow. Evaluate with pedestrian improvements and improved access to Cross Kirkland Corridor.	Protected Bike Lanes as development occurs. Additional right-of-way required.
Lake St - Lake Wa Blvd	Lakeview Dr	Central Way	Bike Lanes	Lake St - Lake Washington Blvd Promenade study	Implement study recommendations that could include protected bike lanes, share use paths or some other type of improvement that would upgrade the existing bike lanes.
6th St	NE 68th St	Kirkland Ave - Way	Bike Lanes	Add green conflict zone markings to existing bike lanes. Protected Bike Lanes up-hill and around curve. COK right-of-way between Kirkland Ave and 6th St at triangle. May require assessment of parking and channelization.	Protected Bike Lanes as development occurs on east side. Additional right-of-way required.
NE 128th St	116th Way NE	Totem Lake Blvd	Bike Lanes	Add green conflict zone markings. Move EB bike lane to south curb between 116th Way NE and TLB. Add raised protected bike lane at curbside level on north side, in-street with delineators on south side between TLB and 120th Ave NE	
NE 68th St	State St	I-405 ramps	Bike lanes (not fully contiguous)	Rechannel/ restripe to complete WB bike lane to 108th, add green paint at driveways. Complete bike lane to 405 ramps and add green paint at driveways.	Protected Bike Lanes as development occurs. Additional right-of-way required.

108th Ave NE	south city limits	NE 52nd St	Bike Lanes NE 41st Dr to NE 52nd St, Sharrows city limit to NE 39th St	Stripe uphill bike lane from south city limit to NE 41st Dr, green intersection markings. Will require coordination with Bellevue to the south	Protected bike lanes as development occurs. Additional right-of-way required, easement on Lake Washington School district property.
NE 116th St	124th Ave NE	Slater	Bike Lanes	Extend bike lane to 116th intersection, add green conflict zone markings	Protected Bike Lanes as development occurs. Additional right-of-way required.

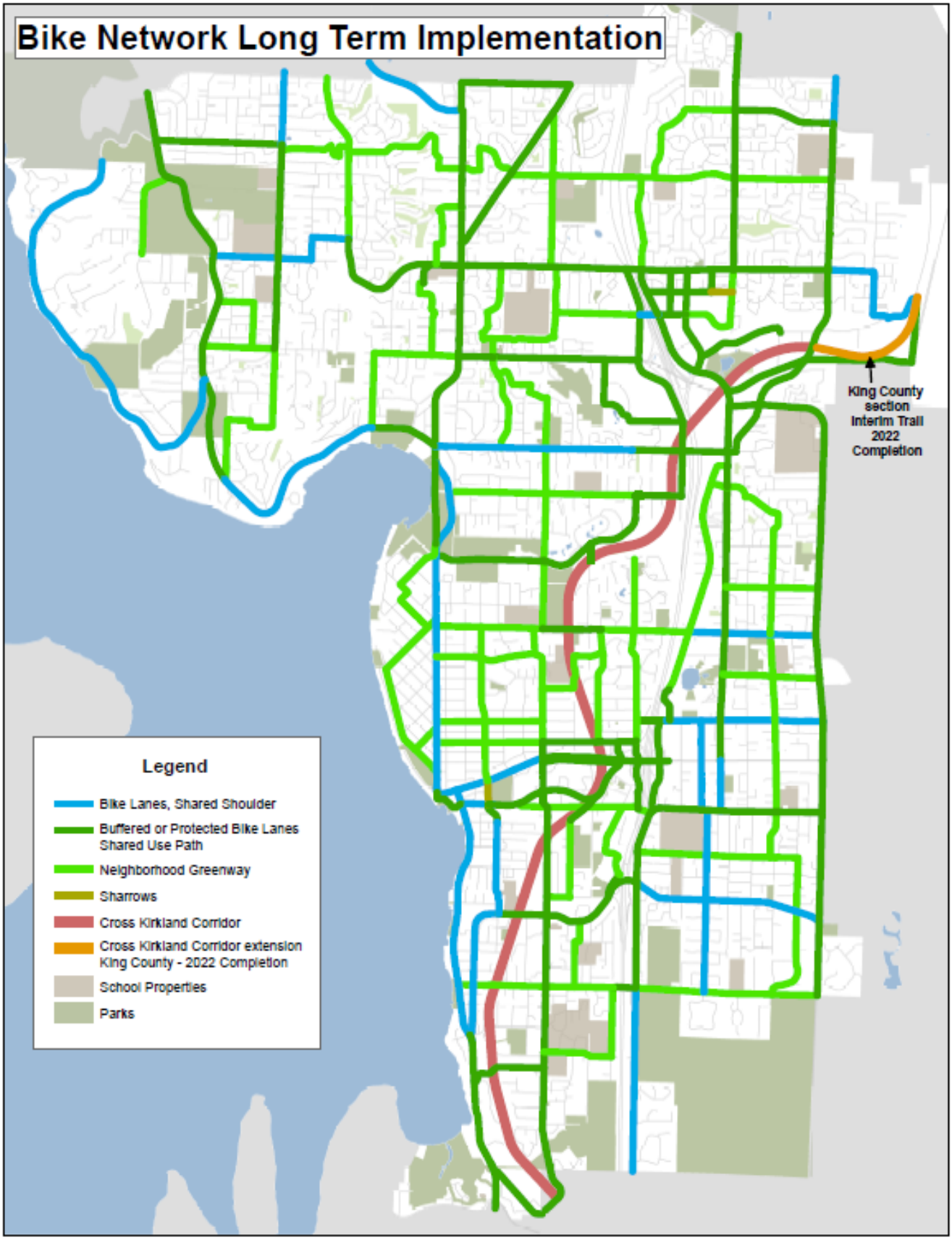
As the city continues to improve the bicycle network for people of all-ages and abilities to be better protected and more comfortable, the existing sidewalk network does provide a more narrow but yet protected network in places that less confident riders can utilize. It will take time for the city to implement the strategies identified in this plan so existing sidewalks to schools or other destinations can provide a protected near-term network for less confident bicyclists. The goal of this plan is to encourage more people to walk and bike now and for those less confident riders, sidewalks can provide some gaps in the network for more protected facilities.

Long-Term Planned Investments

The long-term stated investments outline the city's vision for the future bicycle network as the city grows and changes. Most of the differences noted in the long-term vision are improvements that require additional right-of-way, not necessarily tied to a specific time frame. The City is very fortunate to anticipate future development in many neighborhoods. The benefit of having these strategies specifically outlined in the Active Transportation Plan is so the city can be clear about future project needs so there are no lost opportunities as future development and improvements occur.

For instance, this list is intended to be utilized as a tool by planning and development when communicating street frontage zones as new development occurs. It can also be used as a tool when streets are repaved or to be used as a coordination tool when streets are impacted by other public works projects such as stormwater improvements. The prioritization framework is still referenced but the primary focus of the long-term strategy is clearly communicating recommendations for improvements by segment to be used as a coordination mechanism as the city continues to grow and improve. This also helps to ensure the city can preserve and/ or acquire the right-of-way needed to achieve the long-term vision for a more protected and comfortable bicycle network outlined in this plan.

NOTE: The city has received many comments regarding Lake Washington Boulevard/ Lake Street and improvements to Market Street. Both of these corridors have recommendations for further study in the near-term plan to help the city better identify the longer-term strategy.


Bike Network Long Term Implementation
King County section Interim Trail 2022 Completion
Legend
Bike Lanes, Shared Shoulder
Buffered or Protected Bike Lanes Shared Use Path
Neighborhood Greenway
Sharrows
Cross Kirkland Corridor
Cross Kirkland Corridor extension King County - 2022 Completion
School Properties
Parks

Doing Better at Intersections

Intersections are often the most challenging locations to create bicycling conditions that are comfortable and safe for people of all ages and abilities. Existing bike lanes frequently end before the intersection and are not carried through to the other side, causing confusion and stress for bicyclists as well as drivers. Spot treatments that enhance safety and comfort at intersections can significantly improve the riding experience throughout the network. Intersection spot treatments could include low-cost changes such as painted pavement markings that continue the bikeway through the intersection or queue boxes which are a visible, designated space for bicyclists to wait at a red light. Other intersection enhancements that can improve the bicycling experience in Kirkland include better signal detection and signal modifications to reduce delay, or geometric changes to create more space for bicyclists or reduce vehicle turning speeds.

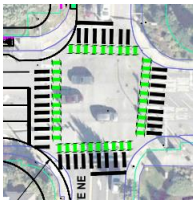
OBJECTIVE: Increase safety at **crossings** for pedestrians needed to complete pedestrian networks and access to destinations

OBJECTIVE: Provide additional pedestrian safety improvements at **intersections**

OBJECTIVE: Make bicycling safer at controlled and uncontrolled intersections

In places where spaces are more constrained, intersection treatments go a long way toward improving safety and comfort for people bicycling and reduce interaction between people bicycling and motor vehicle through and turning movements. NACTO has also developed a menu of intersection strategies in its "Don't Give Up at the Intersection" guide.





Education, Encouragement and other Safety Measures

In addition to looking at implementation of physical infrastructure such as sidewalks, crossing enhancements and bike facilities, there are a number of other efforts the city can do to create a safer network. This includes advances in technology as well as education and encouragement.

Goal: Encourage and incentivize more people to walk and bike, encourage safe behavior for all users of the transportation system.

There is a lot more the city can do to incentivize and encourage more people to walk and bike. The city already incentivizes walk and bike trips through Kirkland Green Trip but more can be done. Providing wayfinding, maps and more information for how people can access destinations without driving can help encourage more people to walk and bike. Education efforts about behavior and interactions on our roadways can also benefit safety.

Technology can also play a significant role in making transportation efficient and effective. For example, technology can help ensure people walking and bicycling have fewer interactions with drivers at signalized intersections. In addition, better understanding the number of people walking and bicycling in the city as well as

where crashes occur can better facilitate decisions for where the needs are greatest. This information also helps the city make the case for new infrastructure through current programs or when seeking outside grant funds.

Supportive Goal: Utilize technology to support safety measures and supplement safe networks.

CHAPTER 5: IMPLEMENTATION STRATEGY

The next stage of the ATP process is to work with City Council and city leadership to identify sustainable funding sources to be able to build and maintain any additional infrastructure required to achieve these objectives.

This chapter provides an implementation strategy, or a way for the City to organize, fund, and build the projects and programs presented in Chapter 4. While all the projects and programs recommended in this Plan are important to improving Kirkland's pedestrian and bicycle network connectivity, safety, and access, realistically, the City of Kirkland has limits to its financial resources and staff capacity, so it will be necessary to implement projects gradually over time.

- Using prioritization process to identify CIP projects
- Candidates for future grant applications
- Opportunities through existing programs
- Opportunities through private development

How Will Projects Get Built?

Capital Improvement Program (CIP):

The prioritization process outlines top priority projects for sidewalks, crossings and bike facilities. These top priority projects are the primary candidates for inclusion into the next Capital Improvement Program. Sources of funding in the CIP that are eligible for transportation include 2012 Street levy funds which include pedestrian safety, maintenance and school access projects. The real estate excise tax is also another major funding source for transportation while other portions include funds from the gas tax, impact fees, business license fees, etc.

In addition to locally sourced funds, the city continually seeks additional funds such as through grants or through the State legislative process. The prioritization process outlined in this plan can clearly communicate the city's proirites as well as how well projects meet city goals and needs.

Other Programs:

There are several other programs that can fund smaller projects that don't require a project to be explicitly listed as part of the capital improvement program.

Projects identified to add striping or bike symbol pavement markings can be added to the **annual striping program**. However, the more striping that occurs, particularly through additional green paint at conflict zones, using thermoplastic and added symbols can add significant costs to this program. Small incremental improvements could be folded into the existing programs but major additions such as significant increases to green conflict zone markings will require this program to be supplemented with additional funds for added striping and on-going maintenance.

Other programs such as the **annual paving program** are opportunities to achieve some of the recommendations outlined in this plan. This relys less on the prioritization process but segment by segment recommendations in

this plan, specifically for the bike network, provide a tool for the city to use as new streets are paved and subsequently restriped. This is where segment by segment recommendations become useful.

Neighborhood Safety Program (NSP): The recommendations in this plan can provide neighborhoods a tool for evaluating local improvements through the NSP where communities are encouraged to collaborate and decide on projects that benefit their neighborhoods. The analysis provided in this plan can assist that process for proposals through this program.

School Zone safety cameras: School zone safety cameras provide additional funds for the city to implement safety projects in school zones. While most of these funds will support projects identified in the Safer Routes to School Action Plans, there are many overlaps with the recommendations in this plan for projects to be funded near schools

Other Coordination Opportunties: The city works closely with King County Metro and Sound Transit on future projects coming to Kirkland, specifically Sound Transit's I-405 Bus Rapid Transit routes (STRIDE) and the future King County Metro K-line Rapid Ride Transit line. These projects in addition to other coordination efforts with Metro look at access as well as speed and reliabity for transit. These access funds provide an additional opportunity for coordination with transit agencies to fund capital projects in Kirkland that provide access to transit.

Development:

Kirkland is very fortunate to anticipate future development in many neighborhoods which is critical to providing much of the infrastructure needed to support the additional growth. As development occurs, sidewalks and other street frontage improvements such as bike facilities are a requirement for permitting additional growth. The benefit of having these strategies specifically outlined in the Active Transportation Plan is so the city can be clear about future project needs so there are no lost opportunities as future development and improvements occur.

For instance, this list is intended to be utilized as a tool by planning and development when communicating street frontage zones as new development occurs. This also helps to ensure the city can preserve and/ or acquire the right-of-way needed to achieve the long-term vision for a more protected and comfortable bicycle network outlined in this plan.

Appendices

- Appendix A: Public Engagement Summary and Feedback
- Appendix B: Prioritization Framework
- Appendix C: Recommended Bicycle Network Improvements
- Appendix D: Recommended Pedestrian Network Improvements
- Appendix F: Baseline Conditions Report